

Area
[1233752]
Machine Id
810048
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0093949	GFL0093935	GFL0062944
Sample Date		Client Info		28 Feb 2024	05 Dec 2023	06 Sep 2023
Machine Age	hrs	Client Info		5402	4864	4309
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	12	15	12
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	4	4
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

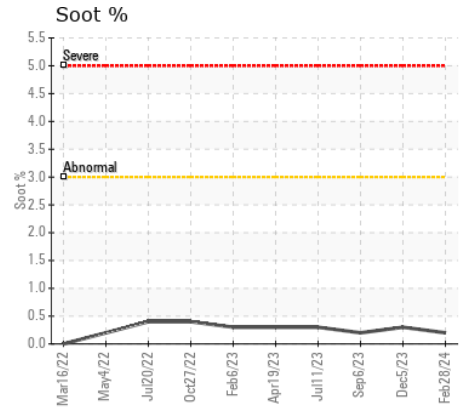
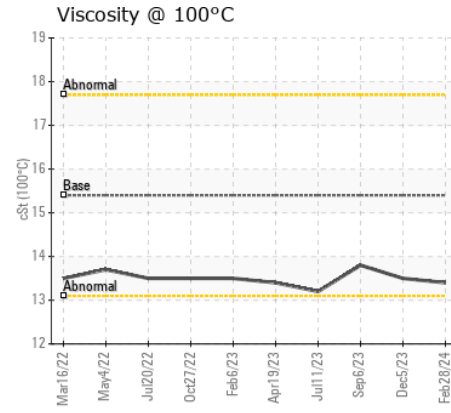
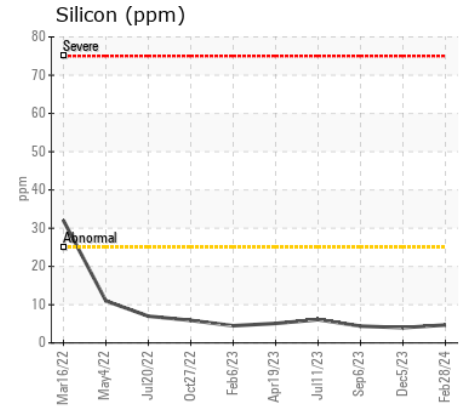
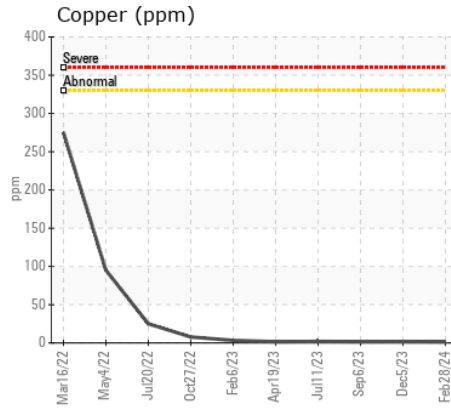
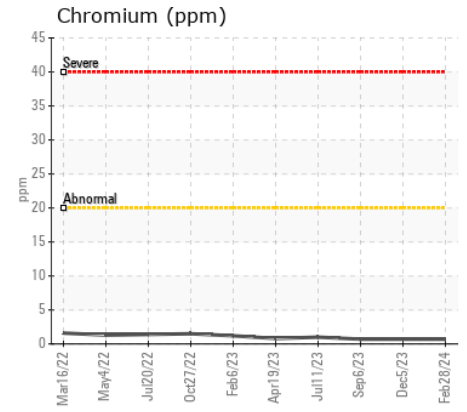
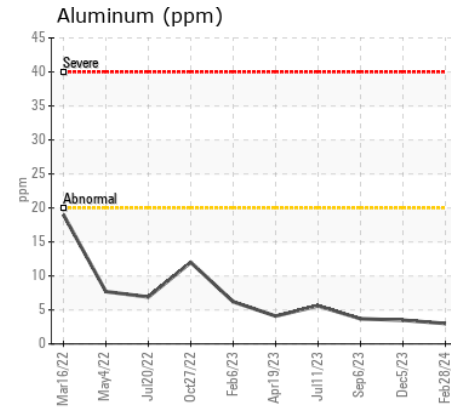
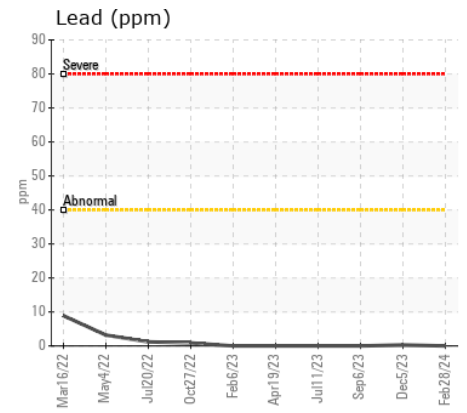
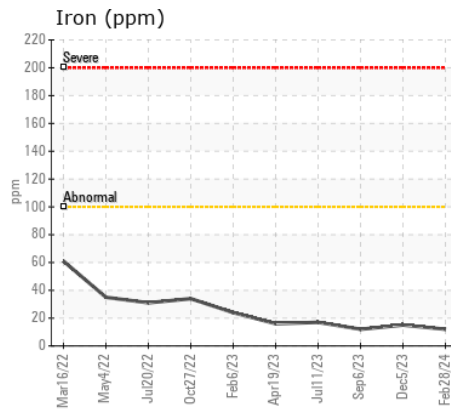
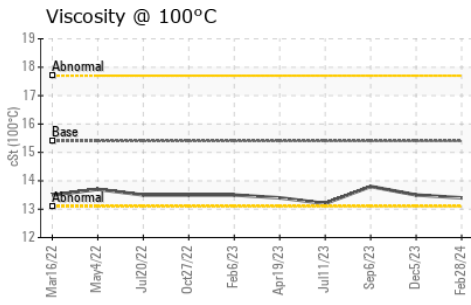
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	4	4
Potassium	ppm	ASTM D5185(m)	>20	4	5	8
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.8	9.1	8.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3	19.5	20.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		6	7	7
Boron	ppm	ASTM D5185(m)	0	6	5	6
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	58	59	56
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	917	918	918
Calcium	ppm	ASTM D5185(m)	1070	1107	1142	1020
Phosphorus	ppm	ASTM D5185(m)	1150	973	952	985
Zinc	ppm	ASTM D5185(m)	1270	1148	1174	1137
Sulfur	ppm	ASTM D5185(m)	2060	2599	2442	2429
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.8	16.1	15.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	13.5	13.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093949
Lab Number : 02619820
Unique Number : 5736930
Test Package : MOB 1
Received : 05 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Wes Davis

GFL Environmental - 777 - Belleville-Municipal waste
 197 Putman Industrial Road
 Belleville, ON
 CA K8N 4Z6
 Contact: Andrea Michael
 amichael@gflenv.com
 T: (613)962-7144
 F: (613)962-1994

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.